

**REMARKS**

Claims 18-19, 21-28, 31-35 and 41-52 are now pending. Claims 18-19 have been amended to define the granulate as prepared by extrusion and as lacking fibrous materials, support for which is found in the present application on page 6, lines 19-20. Specifically, the specification states that “fibrous materials can prevent granulation by extrusion.” Elements positively recited in the specification may be explicitly excluded in the claims. Please see MPEP § 2173.05(i). Support for new claims 41-52 are found in claims 21-28 and 31-34.

Applicants traverse the rejections under 35 U.S.C. § 103(a) of a) claims 18-19, 21, 24-28 and 31-35 over Nielsen in view of Ghani; b) claims 22-23 over Nielson in view of Ghani and further in view of Markussen; and c) claims 18-19, 21-22, 24-28, 31-35 and 39-40 over Nielsen in view of Ghani and further in view of Haarasilta. None of the references describe an extruded granulate that does not contain fibrous materials as now claimed. Nielson describes extrusion of a feed, which contains fibrous materials which may or may not have enzymes therein. Please see Nielsen, page 10, lines 25-26. The intended purpose of Nielsen’s invention involves the use of treating vegetables, which are inherently fibrous, with phytase to increase the solubilities of the protein in the vegetable sources. Please see, Nielsen, the paragraph bridging pages 2-3. Thus, modifying Nielson’s composition to exclude such fibrous vegetable sources would render the composition unsatisfactory for its intended purposes. Please see MPEP § 2145(X)(V). Thus there is no motivation to modify or combine this reference to arrive at the claimed invention.

Further, there is no motivation in any secondary reference to prepare an extruded granulate that does not contain fibrous materials as now claimed. Ghani, Haarasilta and Markussen do not overcome the deficiencies of Nielsen.

Ghani does not disclose extrusion but rather gentler preparation methods such as spray-drying, fluid bed granulation, or high-shear granulation. Such methods typically have lower pressure and temperature processing conditions than an extrusion process. Thus, a skilled artisan would not necessarily select extrusion for a granulate that contains enzyme and which does not contain a fibrous carrier. Applicants respectfully submit that a skilled artisan would not select non-

fibrous carriers without fibrous carriers because fibrous carriers generally stabilize the granules. Applicants respectfully submit that a skilled artisan would not be led to applying extrusion to granules using non-fibrous carriers with the expectation of successfully forming stable granulates.

Like Nielsen, Haarasilta discloses extrusion only with respect to extruding foodstuffs which contain fibrous components. In fact, the object of Haarasilta's feedstuff is to include coarse feed such as fibrous hay or straw which is necessary for the proper action of the rumen. Thus, modifying Haarasilta's composition would render it unsatisfactory for its intended purpose. Please see Haarasilta, page 1, lines 11-13. Furthermore, Haarasilta discloses extrusion of feed pellets which do not contain enzymes. Applicants respectfully submit that a skilled artisan would understand that enzymes are sensitive to processing conditions such as temperature or mechanical processing and rapidly lose their activity if not treated carefully. Thus, a skilled artisan would not look to Haarasilta's extrusion processing of a non-enzyme-containing feed pellet because typically such extrusion processing could destroy an enzyme if present.

With regard to claim 19, the Office alleges that because Ghani discloses the genus of metal salts, a skilled artisan would be motivated to select a species thereof which was not disclosed therein. Ghani discloses monovalent ions such as ammonium or sodium but not divalent ions. It is well-settled that there must be more than mere disclosure of a species in a secondary reference to provide motivation to select the species where the primary reference discloses the genus. Please see *In re Baird*, 16 F3d 380, 29 USPQ2d 1550 (Fed. Cir. 1994); *In re Jones*, 958 F2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In these cases, the Federal Circuit has made it clear that, unless the document disclosing the genus points specifically toward the species claimed, the document disclosing the genus does not render the species unpatentable thereover. Here, nothing pointed to the species of divalent metal ions and in fact Ghani does not disclose such species at all. In *Baird*, the Court noted that the cited reference disclosed diphenols generically and the preferred diphenols were different than the diphenol as claimed. Thus, in *Baird*, the cited reference was found not to fairly suggest the suggestion of the claimed diphenols. Here, Ghani does not disclose divalent metal ions and the metal ions that are disclosed are monovalent. Thus, the Office's allegation that a skilled artisan would select the species of a divalent ion from Ghani's given disclosure is a

departure from well-established patent practice. Further, with regard to Haarasilta, the purpose of the presence of inorganic salts is to assist in forming stable granules resisting decomposition in rumen conditions. A skilled artisan would not be motivated by this disclosure to arrive at the invention of present claim 19 because the present claims are directed to granules which do not contain the fibrous materials needed for appropriate rumen conditions in Haarasilta. Therefore a skilled artisan would not look at the ingredients for decomposition stabilization of a downstream process in the product chain to apply at the earlier step of formation of a special ingredient such as the enzyme granules as claimed.

The Office has alleged that adding divalent cations would be obvious because a divalent cation such as zinc is well known in the art as an essential mineral found in many nutritional supplements. However, the monovalent ion such as potassium is also well known in the art as an essential mineral found in many nutritional supplements. The Office has not shown motivation to select divalent over monovalent cations. "When prior art references require selective combination...to render obvious a subsequent invention, there must be some reason for the combination other than hindsight gleaned from the invention itself." Please see *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988), cert. denied 488 U.S. 825 (1988); *Interconnect Planning Corp v. Feil*, 774 F2d 1132, 1143, 227 USPQ (BNA) 543, 547-548 (Fed. Cir. 1985).

Thus, applicants respectfully request withdrawal of the obviousness rejections.

Conclusion

None of the cited references show an extruded granulate that does not contain fibrous materials as claimed. There is no motivation to modify any of the references to eliminate fibrous materials from the granulate. Thus, the present claims are not obvious over the cited references.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket No. 251502008600. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

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